

REMARKS

Claims 1-22 are pending in this application. Claims 1 and 7 are independent claims. Claims 1, 5, 6, 8, 9, 11, 14, 15, 16, 17 and 18 are amended. Claims 21 and 22 are new. Reconsideration and allowance of the present application are respectfully requested.

Applicant's Written Disclosure

In at least Paragraph [0009] of Applicant's published application (2006/0099557 A1), a "main virtual anatomic environment" is arranged to model an internal cavity of a human, such as an abdominal cavity or a chest cavity. A "local anatomic environment" is arranged to simulate organs, as well as arteries, veins and ducts around organs that are arranged inside of an internal cavity. An example of an organ that is a part of a "local anatomic environment" is a gall bladder or a heart. As described in at least Paragraph [0025], a "library" contains two or more "local anatomic environments". As described in at least Paragraph [0022], a "virtual anatomic environment" may be generated by a "virtual anatomic environment modeller" by incorporating the "main virtual anatomic environment" and the "local anatomic environment". As described in at least Paragraph [0006], separately modelled "local anatomic environments" can therefore be generated and selected for the "virtual anatomic environment" without modeling the entire environment from the beginning, in order to provide credible simulations that are less complicated and/or expensive and that also do not require substantial simulator memory (see Paragraph [0002] for a discussion of the fallacies of conventional modeling techniques).

Rejections under 35 U.S.C. §112

Claims 5, 11 and 15-18 stand rejected under 35 USC § 112, second paragraph, as being indefinite. This rejection is respectfully traversed.

The Examiner rejects these claims asserting that the phrase “such as” renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.¹ Applicant amends these claims by removing the phrase “such as”, as well as the limitations following the phrase. Therefore, Applicant respectfully requests that the rejections of claims 5, 11 and 15-18 under 35 U.S.C. §112 be withdrawn.

Rejections under 35 U.S.C. §102

Claims 1-2, 5, 7-8, 11-12, 16 and 19 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,769,640 (“Jacobus”). This rejection is respectfully traversed.

With regard to independent claim 1, the Examiner asserts that Jacobus teaches all of the claim limitations. Specifically, the Examiner asserts that column 3, lines 57-67 of Jacobus teach selecting a local anatomic environment from a predefined library comprising a set of two or more separately modelled local anatomic environments.² Applicant asserts that Jacobus does not teach “selecting a local anatomic environment from a predefined library comprising a set of two or more separately modelled local anatomic environments” and “including the selected local anatomic environment in said main virtual anatomic environment to form said virtual anatomic environment”, as recited in claim 1. Applicant draws the Examiner’s attention to column 3, lines 49-67 of Jacobus which discloses that the method and apparatus of Jacobus provides separate

¹ See Page 2 of the October 29, 2007 Office Action.

² See Page 3 of the October 29th Office Action.

simulations for various medical procedures, with an example list of procedures including cholecystectomies, vasectomies, bowel resections, inguinal and bilateral hernia repairs, appendectomies, lymphadenectomies, etc. Applicant also draws the Examiner's attention to the abstract of Jacobus, which explains that the method and apparatus of Jacobus includes simulating actual medical procedure by measuring and recording the precise actions of medical instruments, and using virtual reality technology including image processing, three-dimensional graphics and display methods, in order to simulate the precise force/tactile reflections, position sensing and sound generation of the medical instruments and movements taking place in the actual medical procedure. Applicant asserts that Jacobus' disclosure produces, in essence, a virtual recording of medical procedures in three dimensions, as if the procedure is being recorded for later playback by a user. Applicant asserts that Jacobus' simulation of medical procedures is not a "library" that includes "separately modelled local anatomic environments", as recited in claim 1. Additionally, because Jacobus simulates each medical procedure in its entirety, separately, Jacobus does not distinguish between "separately modeled local anatomic environments" and "main virtual anatomic environment", as Jacobus only teaches the one environment that is created especially for each one medical procedure. Because Jacobus does not teach "local anatomic environments" separate from "main virtual anatomic environments", Applicant asserts that Jacobus does not teach "including the selected local anatomic environment in said main virtual anatomic environment to form said virtual anatomic environment", as recited in claim 1.

With regard to independent claim 7, Applicant asserts that claim 7 contains features similar to claim 1 such that at least the same arguments can be made.

With regard to new dependent claims 21 and 22, which depend from independent claims 1 and 7, respectively, Applicant asserts that Jacobus does not teach "wherein components

included in the local anatomic environment are excluded in the main virtual anatomic environment". As described above with regard to claims 1 and 7, Applicant asserts that Jacobus offers a separately created simulation for each one medical procedure, such that all aspects of the procedure are simulated just for that one simulation. Because Jacobus does not distinguish between a "local anatomic environment" and a "main virtual anatomic environment", Applicant asserts that Jacobus does not teach "wherein components included in the local anatomic environment are excluded in the main virtual anatomic environment", as recited in claims 21 and 22.

For at least the reasons stated above related to independent claims 1 and 7, and dependent claims 21 and 22, Applicant believes these claims to be patentable. For at least the same reasons related to dependent claims 2, 5, 8, 11, 12, 16 and 19, Applicant also believes these claims also to be patentable. Therefore, Applicant respectfully requests that the rejections of claims 1-2, 5, 7-8, 11-12, 16 and 19 under 35 U.S.C. §102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103 – Jacobus in view of Ramshaw

Claims 3-4, 6, 9-10, 13-15, 17-18 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jacobus in view of U.S. Patent No. 5,791,907 ("Ramshaw"). This rejection is respectfully traversed.

With regard to independent claims 1 and 7, Applicant asserts that even a cursory review of Ramshaw indicates that Ramshaw does not make up for the deficiencies of Jacobus, as discussed above. Therefore, Applicant believes that independent claims 1 and 7 are patentable over Jacobus in view of Ramshaw.

For at least the reasons stated above related to independent claims 1 and 7, Applicant believes that dependent claims 3-4, 6, 9-10, 13-15, 17-18, and 20-22 are patentable. Therefore, Applicant respectfully requests that this rejection of claims 3-4, 6, 9-10, 13-15, 17-18 and 20 under 35 U.S.C. §103(a) be withdrawn.

New Claims

Applicant adds new dependent claims 21 and 22, which depend from independent claims 1 and 7, respectively. Claims 21 and 22 recite that the components included in the “local anatomic environment” are excluded in the “main virtual anatomic environment”. Applicant asserts that a specification basis for these claims can be found in at least Applicant’s Paragraph [0026].

CONCLUSION

In view of the above remarks and amendments, Applicant respectfully submits that each of the rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.


Pursuant to 37 C.F.R. §1.17 and 1.136(a), Applicant hereby petitions for a one (1) month extension of time for filing a reply to the outstanding Office Action and submits the required \$120.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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By



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